

the XO



specifications

physical

Dimensions: 242mm x 228mm x 30mm

Weight: Less than 1.5 KG

Configuration: Convertible laptop with pivoting, reversible display; dirt and moisture resistant system enclosure

core electronics

CPU: AMD Geode LX-700, 433 Mhz @ 0.8W

North Bridge: PCI and Memory Interface integrated with Geode CPU

Graphics Controller: Integrated with Geode CPU, unified memory architecture

South Bridge: AMD CS5536

DRAM memory: 256 MiB dynamic RAM

Data rate: Dual - DDR333 - 166 Mhz

BIOS: 1024 KB SPI-interface flash ROM; LinuxBIOS; Open Firmware bootloader

Mass storage: 1024 MiB SLC NAND flash, high speed flash controller

Drives: No rotating media

Embedded Controller: ENE KB3700

display

Liquid-crystal display: 7.5" Dual-mode TFT display

Viewing area: 152.4 mm x 114.3 mm

Mono display: 1200 (H) x 900 (V), reflective monochrome mode (200 dpi)

Color display: 800 (H) x 600 (V) or greater transmissive color mode

Power Consumption: 0.1 Watt with backlight off; 0.2-1.0 Watt with backlight on

integrated peripherals

Keyboard: 70+ keys, 1.2mm stroke; sealed rubber-membrane key-switch assembly

Touchpad: Dual capacitance/resistive touchpad; supports written-input mode

Audio: Analog Devices AD1888, AC97-compatible; internal speakers, microphone

Wireless: Marvell Libertas 88W8388+88W8015, 802.11b/g compatible; dual

adjustable, rotating coaxial antennas; supports diversity reception

Status indicators: Power, battery, WiFi; visible lid open or closed

Video camera: 640x480 resolution, 30FPS

external connectors

Power: 2-pin DC-input, 10 to 20 V usable input. Can safely handle -40 to 39 V.

Line output: Standard 3.5mm 3-pin switched stereo audio jack

Microphone: Standard 3.5mm 2-pin switched mono jack; selectable input mode:

- o Sensor, DC 2.5 V (3K impedance) bias voltage for switches, resistive sensors

- o Sensor, DC no bias voltage for measuring voltages (0 - 3 V)

- o External Microphone, AC w. bias voltage

Expansion: 3 Type-A USB-2.0 connectors; MMC/SD Card slot

battery

Fully-enclosed hard case; user removable

Two chemistries:

- o NiMH, with a capacity of 16.5 Watt-hours

- o LiFeP, with a capacity of 22 Watt-hours

Electronics integrated with pack provide:

- o Identification

- o Battery charge and capacity information

- o Thermal and over-current sensors along with cutoff switch to protect battery

Cycle life: Minimum 2,000 charge/discharge cycles (to 50% capacity of new).

manufacturer: Quanta Computer

design: OLPC + Freedom

client: Children